



## **Regional Special Council Minutes**

Monday, July 6, 2020

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This meeting was held electronically with the Chair presiding from 150 Frederick Street, Kitchener.

The following are the minutes of the Special Council meeting held electronically at 6:00 p.m., with the following members present: Chair K. Redman, L. Armstrong, E. Clarke, J. Erb, S. Foxton, T. Galloway, M. Harris, D. Jaworsky, H. Jowett, K. Kiefer, G. Lorentz, K. McGarry, J. Nowak, S. Shantz, S. Strickland, B. Vrbanovic

### **Motion to go into Closed Session**

Moved by S. Strickland

Seconded by S. Shantz

That a closed meeting of Council be held on Monday, July 6, 2020 at 4:00 p.m. in accordance with Section 239 of the Municipal Act, for the purposes of considering the following subject matters:

- a) receiving of advice subject to solicitor client privilege related to a by-law

### **Motion to Reconvene Into Open Session**

Moved by J. Nowak

Seconded by K. McGarry

That Council reconvene into open session.

Carried

Chair Redman opened the meeting with a moment of silence in memory of those who have lost their lives during this pandemic.

### **Roll Call**

Lee Ann Wetzel, Deputy Regional Clerk conducted roll call and all members were present.

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**Declarations of Pecuniary Interest Under The Municipal Conflict of Interest Act**

D. Jaworsky declared a pecuniary interest with respect to the discussion on mask wearing in the community due to a household member being a proprietor of a mask making business.

**Delegations**

- a) Mark Stubbs did not appear before Council when called as a delegation.
- b) Trevor Strauss appeared before Council with respect to the proposed By-law. He provided a presentation, which is **appended** to the minutes. He cited extensive research regarding mask wearing and requested Council not to make it mandatory.
- c) Kristopher Wickens appeared before Council with respect to the proposed By-law. He reviewed death rates and infection rates and asked it not be mandatory to wear face coverings.
- d) Ian McLean, President & CEO and Art Sinclair, Vice President, Greater Kitchener Waterloo Chamber of Commerce appeared before Council with respect to the proposed By-law. A. Sinclair stated a second wave is a concern and he referenced an opinion editorial they prepared. I. McLean supported the wearing of masks and stated hand washing, social distancing and masks are the best methods to support businesses in the community. A question was asked if de-escalation training has been considered to support businesses. I. McLean advised they will look at options and support whatever decision Council approves.
- e) Marissa Heisel appeared before Council with respect to the proposed By-law. She stated there is no scientific evidence to mandatory masking and masks create a false sense of security.
- f) Taylor Junkin appeared before Council with respect to the proposed By-law. She expressed concern with a mandatory by-law and that it violates the Charter of Rights and Freedoms and can cause health problems. There are risks and they can have negative impacts.
- g) Albert Daigen appeared before Council with respect to the proposed By-law. He thanked Council and staff for bringing a by-law forward. He gave an overview of the benefits of masking and stated the by-law is urgently needed.
- h) Richard Evers appeared before Council with respect to the proposed By-law. He referenced the Canadian Charter of Rights and Freedoms and stated

government should not mandate the use of masks. Council should not pass this by-law.

i) Duncan Clemens appeared before Council with respect to the proposed By-law. He stated evidence based advice has shifted and wearing a masks protects individuals and those around us. He expressed concern with the lack of people wearing masks in the Region and encouraged Council to pass the By-law.

j) Stephanie Walters appeared before Council with respect to the proposed By-law. Her concern is that this mandate will create segregation in the community for those who cannot wear a face mask. She stated what the Region has been doing so far has been working.

k) Frederick Roy did not appear before Council when called as a delegation.

l) Alex Taylor, President and Josh Pascoe, Vice President, Austin Air Systems (Canada Inc) did not appear before Council when called as a delegation.

m) Iora Almedia did not appear before Council when called as a delegation.

n) Tim Mollison appeared before Council with respect to the proposed By-law. He supported the passing of a mandatory masking by-law and urged Council to support it.

o) Franklin Ramsoomair appeared before Council with respect to the proposed By-law. He provided a presentation, which is **appended** to the minutes, regarding scientific evidence for face masks, making allowances for those not able to wear masks, the need to keep flattening the curve. He asked Council to please pass the by-law.

p) Spenser Kuzub cancelled his delegation.

q) Tino Desideri appeared before Council with respect to the proposed By-law. He referenced scientific research and the purpose of masks and stated the World Health Organization does not support the wearing of cloth masks. He stated the testing data is corrupt and urged Council not to approve a by-law. In response to a question, T. Desideri advised he grew up in Waterloo Region and still visits regularly. He is involved with a number of organizations and could provide that information.

r) Andrew Dixon appeared before Council with respect to the proposed By-law. He questioned why this would be mandated now without sufficient evidence. He asked what the risk is and how is it measured.

s) Jason Thistlethwaite appeared before Council with respect to the proposed By-3344713

- law. He gave an overview of the benefits of investment and supported a mandatory mask by-law.
- t) Jan d'Ailly appeared before Council with respect to the proposed By-law. He provided a presentation which is **appended** to the minutes, stating there needs to be consistency, education and leadership.
  - u) Rob Shirkey appeared before Council with respect to the proposed By-law. He stated he lives in Guelph and was able to share some of their experiences with mandatory masks. He stated the numbers are down and it is important to continue keeping them down. Wearing masks works to keep the spread of the virus.
  - v) Dr. Mark Cohen, Co-National Medical Director, CEO, Vision Group Canada (LASIK MD Waterloo and TLC Waterloo locations) appeared before Council with respect to the proposed By-law. He expressed support for the by-law and the benefits of wearing masks. He stated face shields are a good second option if someone cannot wear a mask.
  - w) Kashif Pirzada, Co-Chair, Masks For Canada appeared before Council with respect to the proposed By-law. He provided background information on his coalition and their support for mask by-laws. He outlined the municipalities that have already approved by-laws.
  - x) Kimberly Gawne appeared before Council with respect to the proposed By-law. She spoke against the mandatory by-law for masks and explained her personal reasons as there are people with hearing issues and medical conditions that cannot wear masks.
  - y) Blake Larson appeared before Council with respect to the proposed By-law. He stated there is evidence of the problems that wearing masks causes. He stated the best way forward is to ask questions and all options should be on the table.
  - z) Gary Tomic appeared before Council with respect to the proposed By-law. He provided a presentation, **appended** to the minutes, reviewing the house of worship context in the by-law. He referenced a Public Health Ontario document that identifies there are no documented randomized trials to prove masks are effective for covid and that hand hygiene is critical. He suggested consideration be given to a hand hygiene by-law or exemptions where physical distancing can be done.
- aa) Chanakya Ramdev appeared before Council with respect to the proposed By-

law. He stated wearing a mask is like wearing a seat belt and the by-law is about life and death. He requested Council to pass the by-law unanimously to send a strong signal to the public.

## **Correspondence**

The following correspondence was received for information:

- a) Letter from City of Kitchener Mayor Berry Urbanovic, re: Formal Request On the Mandatory Wearing of Masks
- b) Letter from Karen Wilson, re: Mask Mandate in Public Places Letter from Alison Coleman, re: Masks Should Not be Mandatory
- c) Letter from Rowena Martin, re: Biking With Masks
- d) Letter from Susan Schott, re: Vulnerable are at Risk in the Region
- e) Letter from William Calberry, re: Masks in Businesses
- f) Letter from Justin Sayers, re: Mandatory Mask Order Does Not Make Sense
- g) Letter from Joseph Hickey, PhD, Executive Director, Ontario Civil Liberties Association re: Mandatory face mask policies have no scientific basis, violate civil liberties, and must be rejected
- h) Letter from Christine Rogalsky, re: Masking Law
- i) Letter from Vanessa Ricci-Thode, re: Mask bylaw
- k) Lori Mason, re: Civil rights
- l) Ted Parkinson re: Wearing Masks
- m) Andrew Kish re: July 6 2020 Mandatory Mask By-Law
- n) Sharon MacKenzie, CHCI, Special Education Department Head, re: Support Mandatory Masks
- o) Jamie & Karen Howieson, re: Mandatory Masks in the Region of Waterloo
- p) Laura Ramsahai, re: Mandatory Masks please
- q) Karen Andrews, re: say no to mandatory masks
- r) Dawn Turai, re: Mandatory masks - yes please!
- s) MaryLou and Milne Oakes, re: Face Masks
- t) Joanna Nairn, re: In Support of Mask Mandate

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- u) Jade Billo Managing, Director, Big Bliss Hot Yoga + Fitness re: Masks and Exercise
  - v) Terry, re: Face mask vote
  - w) Dan Tomic, re: Please vote NO to mandatory masks
  - x) Debrodniks Donuts, re: Forced Masking
  - y) Geoffrey Gartshore, re: Draft Covid Mask Bylaws
  - z) Ruston Evans, Mybodyismychoice, re: Face masks
  - aa) Monique Krawecki, re: Mandatory Face Mask Meeting
  - bb) Dawn Parker, re: Supporting the mask bylaw
  - cc) Jena, re: Not making masking mandatory in Waterloo region
  - dd) Tracy Morency, re: Mandatory Mask bylaw
  - ee) Richard Phillips, re: Mask By-law
  - ff) Raymond Hoang Re: Mandatory Masks Bylaw Comment
  - gg) Carol Thorman, re: Mask bylaw
  - hh) John Jackson, re: Proposed by-law re wearing masks during covid
  - ii) Emily Schroeder, Ontario Civil Liberties Association re: Copy of email to all councillors re: mask bylaw
  - jj) David Croft, re: Easy decision on masks. Look to Vietnam and Taiwan
  - kk) Adrienne Kershaw-Gies, re: Supporting mandatory mask wearing in Waterloo Region
  - ll) Monique Joy, re: Decision on Making Masks Mandatory in Waterloo Region
  - mm) Sarah Robson, re: Mandatory mask vote
  - nn) Lindsay Laur, re: Mandatory masks in Waterloo Region
  - oo) Evelyn Bennett, re: Masks in a public places
  - pp) Joan van Arragon, re: Mandatory Facial Covering (masks) By-laws
  - qq) Corliss Olson & Douglas Drake, re: In favour of mask by-law

- rr) Andrzej Jaronski, re: Should masks be mandatory?
- ss) Mark Andrews, re: Mandatory mask bylaw
- tt) Robert Graham, re: Myth - It's new we have no defence
- uu) Jaclyn Witt, re: In support of mandatory masks
- vv) Anonymous, re: mask wearing support vote- YES
- ww) Deanna Ozolins, re: Support for mandatory face masks
- xx) Edward A.Greenhalgh, re: Legal Public Notice Calling for Complete Legal and Civil (Full Personal) Liability to be Held Against ALL Council Members and Mayors.

### **Legal Report**

- a) PDL-LEG-20-33, Draft By-laws to Require Face Coverings on Grand River Transit and in Certain Enclosed Public Places

Debra Arnold, Regional Solicitor, provided an overview of the report, noting the by-law only applies to indoor spaces where the general public is admitted. The second draft by-law deals with GRT vehicles and LRT vehicles, bus shelters and platforms at transit stations and requires face coverings in those locations. The effective date is at the determination of Council, staff have recommended July 13<sup>th</sup> in order to roll out communication materials. The repeal date is also up to Council, and criteria is included in the report for determining an appropriate date.

Councillors were supportive of the July 13<sup>th</sup> start date and stated the end date with a renewal mechanism could be beneficial. D. Arnold provided potential wording "that both By-laws be deemed to be repealed and no longer in effect and revoked at 12:01 a.m. on September 30, 2020 unless extended by Regional Council."

B. Vrbanovic proposed an amendment to the motion to acknowledge the needs of those hard of hearing and how to accommodate that circumstance. D. Arnold stated another exemption could be added to allow persons assisting someone with a hearing disability.

An amendment was also proposed by B. Vrbanovic regarding places of worship to include a reference to allow for food and drink as part of their service.

There was discussion on the enforcement of the by-law on a complaint basis. With respect to the Region having resources to adequately enforce the by-law, staff advised it depends on the number of complaints received. Education and awareness will be the initial approach for enforcement.

In response to a question if face shields are included in the definition of face covering, D. Arnold advised it is not included in the definition. Dr. Hsiu-Li Wang, Acting Medical Officer of Health advised a face shield is not an accepted alternative as it does not catch the droplets. However, if someone cannot wear a mask, a shield is better than nothing.

Councillors supported the removal of Section 10 of the Face Covering By-law, "Every person who is the owner or operator of an enclosed public place shall not permit a person in such enclosed public place without a face covering". It was agreed it is important to support businesses and not be punitive.

It was noted this By-law is a public policy point of view rather than a public health order.

Councillors directed additional wording in Section 1 (9) to reflect that people need to be kind, as not everyone can wear a mask and to hand out educational materials related to this. Mike Murray, Chief Administrative Officer, stated Section 1 (9) is currently clear language and an education campaign will be under way to wear a face covering and respect those who cannot.

Councillors discussed the end date, removal of section 1 (10), and public education.

M. Harris raised the matter of places of worship that are actively engaged in religious activity that require the consumption of food and drink and suggested they be removed as an enclosed public place. There was no seconder for this motion.

Moved by M. Harris

Seconded by

That Section 1 (5) (m) places of worship be removed from the By-law to Require the Wearing of Face Coverings in Enclosed Public Places

Motion Failed due to lack of seconder

B. Vrbanovic put the motion on the floor, including the amendments he proposed, which were agreed to by H. Jowett.

A recorded vote was requested.

Moved by B. Vrbanovic

Seconded by H. Jowett

That the Regional Municipality of Waterloo:

3344713



- a) enact a By-law to Require the Wearing of Face Coverings in Enclosed Public Places as set out in Appendix "A" to require persons to wear face coverings in certain enclosed public places, with such By-law to be effective July 13, 2020;
- b) enact a By-law to amend the Code of Use By-law (13-050, as amended) as set out in Appendix "B" to require persons to wear face coverings on Grand River Transit vehicles (buses and light rail vehicles) and within bus shelters and on platforms of transit stations, with such By-law to be effective July 13, 2020;
- c) that both By-laws be deemed to be repealed and no longer in effect and revoked at 11:59 p.m. on September 30, 2020 unless extended by Regional Council;
- d) that the By-law to Require the Wearing of Face Coverings in Enclosed Public Places include a reference to accommodating people with hearing disabilities;
- e) that the By-law to Require the Wearing of Face Coverings in Enclosed Public Places include a reference regarding places of worship, to allow for food and drink as part of their service;
- f) that Section 1 (10) of the By-law to Require the Wearing of Face Coverings in Enclosed Public Places be removed; and
- g) waive its notice policy in regard to the enactment of the aforesaid by-laws pursuant to Report PDL-LEG-20-33, dated July 6, 2020.

Carried, Unanimously

**\*\*D. Jaworsky declared Conflict of Interest\*\***

Council was requested to provide direction to staff if they wanted to seek set fine approval for the face covering by-law. There was discussion on the process to get approval and that it could take up to three months but it was agreed to proceed regardless.

Chair Redman advised as it was getting close to 11:00 p.m., a motion was required to extend the time of the meeting pursuant to the Procedural By-law.

Moved by S. Foxton

Seconded by L. Armstrong

That Council agree to extend the Council meeting to 11:30 p.m.

Carried, Unanimously

Moved by B. Vrbanovic

Seconded by S. Strickland

That the Regional Municipality of Waterloo apply for set fine approval with regard to Face Covering By-law 20-035, and the Regional Clerk and Regional Solicitor are hereby authorized to take all actions in connection with such application on behalf of the Regional Municipality of Waterloo.

Carried

### **Enactment of By-Laws (First, Second & Third Readings)**

Moved by S. Foxton

Seconded by T. Galloway

- a) That a By-law to Amend By-law 13-050, A By-law Respecting the Conduct of Persons Entering Upon Buildings, Grounds and Public Transportation Vehicles Owned or Occupied by the Regional Municipality of Waterloo, be read a first, second and third time, finally passed and numbered 20-034, signed by the Regional Chair and Regional Clerk and sealed with the Regional Seal.
- b) That a By-law to Require the Wearing of Face Coverings in Enclosed Public Places During the COVID-19-Pandemic, be read a first, second and third time, finally passed and numbered 20-035, signed by the Regional Chair and Regional Clerk and sealed with the Regional Seal.
- c) That a By-law to Confirm the Actions of Council of July 6, 2020, be read a first, second and third time, finally passed and numbered 20-036, signed by the Regional Chair and Regional Clerk and sealed with the Regional Seal.

Carried

Chair Redman advised this is Chief Administrative Officer Mike Murray's final Council meeting and thanked him for his many years of service. M. Murray thanked Council.

### **Adjourn**

Moved by G. Lorentz

Seconded by K. Kiefer

That the meeting adjourn at 11:00 p.m.

3344713

Carried

**Regional Chair, K. Redman**

**Deputy Regional Clerk, L. Wetzel**

# Sound Public Policies

Trevor Strauss

# Intro

- Trevor Strauss, B.Com. MBA
- Dad of 5
  - Ages 2 – 12
  - 12 yr old afflicted by extremely rare disease Cystinosis
    - Life expectancy used to be 8 years old, now avg is late twenties
    - Extensive health care system interaction
- Startup Entrepreneur
  - Founded BEHOLD in 2013
  - Servicing Starbucks Canada, TripAdvisor, Staples, CBRE

# Situation – Covid-19

- Covid-19
  - Drastically less severe than originally promoted
  - WHO – March 6, 2020
    - “Q. How are COVID-19 and influenza viruses different? The speed of transmission is an important point of difference between the two viruses. Influenza has a shorter median incubation period (the time from infection to appearance of symptoms) and a shorter serial interval (the time between successive cases) than COVID-19 virus. The serial interval for COVID-19 virus is estimated to be 5-6 days, while for influenza virus, the serial interval is 3 days. This means that influenza can spread faster than COVID19. “
    - “Children are important drivers of influenza virus transmission in the community. For COVID-19 virus, initial data indicates that children are less affected than adults and that clinical attack rates in the 0-19 age group are low. Further preliminary data from household transmission studies in China suggest that children are infected from adults, rather than vice versa. “
  - CDC – May 22 2020
    - A lower mortality rate than predicted
      - "The most likely CDC scenario now estimates that the coronavirus mortality rate for infected people is between 0.2% and 0.3%. This is a far cry from the 3.4% figure that had been put forward by the WHO at the start of the pandemic," states Peter St. Onge, Senior Fellow at the Montreal Economic Institute. "While these data are from the United States, it's reasonable to think that the situation is similar in Canada," adds the researcher.
    - 0.26% fatality rate; 2017-2018 Influenza like #s
  - Sick Kids Hospital – June 17 2020
    - "We have to accept that COVID-19 will stay with us for a long time. We must move on with certain activities in our lives, such as schooling, while keeping in mind that there are a lot of ways to mitigate risk," says Dr. Ronald Cohn, President and CEO of SickKids and one of the authors of the document.
    - Guidance statement(s): • Non-medical and medical face masks are not required or recommended for children returning to school. The following points were considered in this recommendation: • There is a lack of evidence that wearing a face mask prevents SARS-CoV-2 transmission in children. It is recognized that some parents and children may choose to wear masks. This is a personal choice and should not be discouraged.

# Situation – Waterloo Region

- >80% in LTC
  - 116 deaths - 95 LTC, 21 Community
- Stage 2 reopening – Mid June
  - No increases in case rate
- Proposing Mandatory Masking
  - Purported goal: to lower transmission by limit respiratory droplets

# Findings

- Transmission

- Dr. Gerald Evans, Kingston's top epidemiologist and medical director of infection control at Kingston Health Sciences Centre
  - "We now know that to get infected with this virus, you have to be in close contact with another person (and) that contact has to be for a significant amount of time. It's not 10 or 15 minutes, it's hours. It needs to be in a closed environment, a house, and in the environment, there has to be a significant amount of contamination,"
  - "Although this virus can be transmitted person-to-person, it is not quite as easy as people believe it to be."

- The mask

- suppose to protect those around you from droplets expelled during coughing and sneezing
- The majority of the population is not coughing or sneezing
- 35% of people who contract covid-19 will be asymptomatic
- Colin Furness, an infection control epidemiologist and assistant professor at the University of Toronto.
  - "If 30 million Canadians are wearing a cloth mask all day long, you'll see a noticeable spike in bacterial lung infections in a month or so,"



# Research

- PMID: 18500410. Preliminary Report on Surgical Mask Induced Deoxygenation During Major Surgery. Neurocirugia (Astur) . 2008 Apr;19(2):121-6. doi: 10.1016/s1130-1473(08)70235-
  - Considering our findings, pulse rates of the surgeon's increase and SpO2 decrease after the first hour. This early change in SpO2 may be either due to the facial mask or the operational stress. Since a very small decrease in saturation at this level, reflects a large decrease in PaO2, our findings may have a clinical value for the health workers and the surgeons.
- Use of Surgical Face Masks to Reduce the Incidence of the Common Cold Among Health Care Workers in Japan: A Randomized Controlled Trial. American Journal Infection Control . 2009 Jun;37(5):417-419. doi: 10.1016/j.ajic.2008.11.002. Epub 2009 Feb 12.
  - Face mask use in health care workers has not been demonstrated to provide benefit in terms of cold symptoms or getting colds.

# Research

- Universal Masking in Hospitals in the Covid-19 Era New England Journal Medicine . 2020 May 21
  - We know that wearing a mask outside health care facilities offers little if any protection from infection
- A Cluster Randomised Trial of Cloth Masks Compared With Medical Masks in Healthcare Workers British medical journal MJ Open 2015 Apr 22
  - This study is the first RCT of cloth masks, and the results caution against the use of cloth masks. This is an important finding to inform occupational health and safety. Moisture retention, reuse of cloth masks and poor filtration may result in increased risk of infection. As a precautionary measure, cloth masks should not be recommended for HCWs, particularly in high-risk situations, and guidelines need to be updated.

# Research

- Headaches Associated With Personal Protective Equipment - A Cross-Sectional Study Among Frontline Healthcare Workers During COVID-19 Journal Headache 2020 May
  - Most healthcare workers develop de novo PPE-associated headaches or exacerbation of their pre-existing headache disorders.
- Optical Microscopic Study of Surface Morphology and Filtering Efficiency of Face Masks PeerJ . 2019 Jun 26
  - Background: Low-cost face masks made from different cloth materials are very common in developing countries. The cloth masks (CM) are usually double layered with stretchable ear loops. It is common practice to use such masks for months after multiple washing and drying cycles. If a CM is used for long time, the ear loops become stretched. The loop needs to be knotted to make the mask loop fit better on the face. It is not clear how washing and drying and stretching practices change the quality of a CM. The particulate matter (PM) filtering efficiency of a mask depends on multiple parameters, such as pore size, shape, clearance, and pore number density. It is important to understand the effect of these parameters on the filtering efficiency.
  - The poor filtering efficiency may have arisen from larger and open pores present in the masks. Interestingly, we found that efficiency dropped by 20% after the 4th washing and drying cycle. We observed a change in pore size and shape and a decrease in microfibers within the pores after washing. Stretching of CM surface also altered the pore size and potentially decreased the filtering efficiency. This study showed that the filtering efficiency of cloth face masks were relatively lower, and washing and drying practices deteriorated the efficiency. We believe that the findings of this study will be very helpful for increasing public awareness and help governmental agencies to make proper guidelines and policies for use of face mask.

# Research


- The Use of Masks and Respirators to Prevent Transmission of Influenza: A Systematic Review of the Scientific Evidence. Journal of Influenza Other Respir Viruses 2012 Jul
  - None of the studies established a conclusive relationship between mask/respirator use and protection against influenza infection.
- Face Coverings, Aerosol Dispersion and Mitigation of Virus Transmission Risk - University of Edinburgh 2005
  - The SARS-CoV-2 virus is primarily transmitted through virus-laden fluid particles ejected from the mouth of infected people. In some countries, the public has been asked to use face covers to mitigate the risk of virus transmission – yet, their outward effectiveness is not ascertained.
  - Background Oriented Schlieren technique to investigate the air flow ejected by a person while quietly and heavily breathing, while coughing, and with different face covers.
  - Surgical and hand-made masks, and face shields, generate several leakage jets, including intense backward and downwards jets that may present major hazards. We also simulated an aerosol generating procedure (extubation) and we showed that this is a major hazard for clinicians.

# Research

- JAMA – March 4, 2020
  - Journal of the American Medical Association
- When Should a Mask Be Used?
- Face masks should be used only by individuals who have symptoms of respiratory infection such as coughing, sneezing, or, in some cases, fever. Face masks should also be worn by health care workers, by individuals who are taking care of or are in close contact with people who have respiratory infections, or otherwise as directed by a doctor. Face masks should not be worn by healthy individuals to protect themselves from acquiring respiratory infection because there is no evidence to suggest that face masks worn by healthy individuals are effective in preventing people from becoming ill. Face masks should be reserved for those who need them because masks can be in short supply during periods of widespread respiratory infection. Because N95 respirators require special fit testing, they are not recommended for use by the general public.

**Medical masks** can be used to prevent the spread of respiratory infections.

There are 2 main types of medical masks: **face masks** and **N95 respirators**.



**Face masks** fit more loosely and prevent the wearer from spreading large sprays and droplets when coughing or sneezing.

**N95 respirators** fit more tightly and prevent the wearer from inhaling smaller, airborne infectious particles. N95 respirators are not recommended for use by the general public.

**Face masks should only be used by**

- ✓ Individuals with symptoms of respiratory infection such as coughing, sneezing, and sometimes fever
- ✓ Health care workers
- ✓ Persons taking care of or in close contact with someone with a respiratory infection

**How do I use a face mask?**

- 1 Wash hands for at least 20 seconds prior to putting on a face mask.
- 2 Place face mask over nose and mouth. Ensure a tight seal with no gaps and secure elastics or straps.
- 3 Avoid touching the front of the face mask. If you do, wash hands for at least 20 seconds.
- 4 Remove the face mask without touching the front. Discard in a closed bin.
- 5 Wash hands again for at least 20 seconds.

# Research

- The Lancet – May 2020
  - Notably, improper use of face masks, such as not changing disposable masks, could jeopardise the protective effect and even increase the risk of infection.
  - WHO currently recommends that people should wear face masks if they have respiratory symptoms or if they are caring for somebody with symptoms

# Research

- European Centre for Disease Prevention and Control – April 8
  - There is no evidence that non-medical face masks or other face covers are an effective means of respiratory protection for the wearer of the mask. Overall, various non-medical face masks were shown to have very low filter efficiency (2–38%) [21]. In one study, cotton surgical masks were associated with a higher risk of penetration of microorganisms and ILI compared to no masks.
  - There are no established standards for self-made non-medical face masks.
  - The use of face masks may provide a false sense of security leading to suboptimal physical distancing, poor respiratory etiquette and hand hygiene – and even not staying at home when ill.
  - There is a risk that improper removal of the face mask, handling of a contaminated face mask or an increased tendency to touch the face while wearing a face mask by healthy persons might actually increase the risk of transmission.

# Research

- Oral Health Group
- **John Hardie, BDS, MSc, PhD, FRCDC**
  - A December 2015 article in the National Post seems to ascribe to Dr. Gardam, Director of Infection Prevention and Control, Toronto University Health Network the quote, “I need to choose which stupid, arbitrary infection control rules I’m going to push.” **8** In a communication with the author, Dr. Gardam explained that this was not a personal belief but that it did reflect the views of some infection control practitioners. In her 2014 article, “Germs and the Pseudoscience of Quality Improvement”, Dr. K Sibert, an anaesthetist with an interest in infection control, is of the opinion that many infection control rules are indeed arbitrary, not justified by the available evidence or subjected to controlled follow-up studies, but are devised, often under pressure, to give the appearance of doing something.
  - To address this fault, the authors of a 2007 New England Journal of Medicine (NEJM) article eloquently argue that all safety and quality improvement recommendations must be subjected to the same rigorous testing as would any new clinical intervention. **10** Dr. R. MacIntyre, a proponent of this trend in infection control, has used her research findings to boldly state that, “it would not seem justifiable to ask healthcare workers to wear surgical masks.” **4** To understand this conclusion it is necessary to appreciate the current concepts relating to airborne transmissions.
  - The respiratory tract has efficient defence mechanisms. Unless face masks have the ability to either enhance or lessen the need for such natural defences, their use as protection against airborne pathogens must be questioned.
  - Between 2004 and 2016 at least a dozen research or review articles have been published on the inadequacies of face masks. **5,6,11,17,19,20,21,25,26,27,28,31** All agree that the poor facial fit and limited filtration characteristics of face masks make them unable to prevent the wearer inhaling airborne particles. In their well-referenced 2011 article on respiratory protection for healthcare workers, Drs. Harriman and Brosseau conclude that, “facemasks will not protect against the inhalation of aerosols.” **11** Following their 2015 literature review, Dr. Zhou and colleagues stated, “There is a lack of substantiated evidence to support claims that facemasks protect either patient or surgeon from infectious contamination.” **25** In the same year Dr. R. MacIntyre noted that randomized controlled trials of facemasks failed to prove their efficacy. **5** In August 2016 responding to a question on the protection from facemasks the Canadian Centre for Occupational Health and Safety replied:
    - The filter material of surgical masks does not retain or filter out submicron particles;
    - Surgical masks are not designed to eliminate air leakage around the edges;
    - Surgical masks do not protect the wearer from inhaling small particles that can remain airborne for long periods of time. **31**
  - In 2015, Dr. Leonie Walker, Principal Researcher of the New Zealand Nurses Organization succinctly described- within a historical context – the inadequacies of facemasks, “Health care workers have long relied heavily on surgical masks to provide protection against influenza and other infections. Yet there are no convincing scientific data that support the effectiveness of masks for respiratory protection. The masks we use are not designed for such purposes, and when tested, they have proved to vary widely in filtration capability, allowing penetration of aerosol particles ranging from four to 90%.” **35**



# Research

- Effectiveness of personal protective measures in reducing pandemic influenza transmission: A systematic review and meta-analysis [Epidemics Volume 20](#), September 2017, Pages 1-20
  - regular hand hygiene provided a significant protective effect
  - facemask use provided a non-significant protective effect

# Submission

- As a dad of 5 children, one of which is vulnerable
  - Sneeze/cough into elbow
- Covid-19 fatality rate of 0.26%
- Transmission happens with close extended contact
- Waterloo Region not a hot spot even since reopening
- Masks are made for people who are ill
- Research uncovers vast issues with masking
- Let's use evidence and not fear in Waterloo Region, the data does not support the need of a mandatory mask bylaw.
- My family and business are requesting no mandatory masking bylaw.

# Ref

- [https://www.youtube.com/watch?v=V1Im7jsW9\\_Y](https://www.youtube.com/watch?v=V1Im7jsW9_Y)
- <https://arxiv.org/ftp/arxiv/papers/2005/2005.10720.pdf>
- <https://jamanetwork.com/journals/jama/fullarticle/2762694>
- New Zealand
  - [https://www.health.govt.nz/system/files/documents/pages/review\\_of\\_science\\_and\\_policy\\_around\\_face\\_masks\\_and\\_covid-19-15may2020.pdf](https://www.health.govt.nz/system/files/documents/pages/review_of_science_and_policy_around_face_masks_and_covid-19-15may2020.pdf)
- <https://web.archive.org/web/20200618031535/https://www.oralhealthgroup.com/features/face-masks-dont-work-revealing-review/>
- <http://www.sickkids.ca/PDFs/About-SickKids/81407-COVID19-Recommendations-for-School-Reopening-SickKids.pdf>

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Journal Neurocirugia (Neurosurgery):  
**"Preliminary Report on Surgical Mask Induced Deoxygenation During Major Surgery.. Our study revealed a decrease in the oxygen saturation of arterial pulsations (SpO2)"**  
PMID: 18500410

(NEJM) New England Journal of Medicine:  
**"We know that wearing a mask outside health care facilities offers little, if any, protection from infection."**  
PMID: 32237672

Annals of Internal Medicine:  
**"..both surgical and cotton masks seem to be ineffective in preventing the dissemination of SARS-CoV-2 from the coughs of patients with COVID-19 to the environment and external mask surface."**  
<https://www.acpjournals.org/doi/10.7326/M20-1342>

Journal Headache:  
**"Most healthcare workers develop de novo PPE (such as N95 face mask) associated headaches or exacerbation of their pre-existing headache disorders."**  
PMID: 32232837

Journal of Life and Environmental Sciences:  
**"This study showed that the filtering efficiency of cloth face masks were relatively lower, and washing and drying practices deteriorated the efficiency."**  
PMID: 31289698

Journal of Influenza & Other Respiratory Viruses:  
**"None of the studies established a conclusive relationship between mask/respirator use and protection against influenza infection."**  
PMID: 22188875

American Journal of Infection Control:  
**"Face mask use in health care workers has not been demonstrated to provide benefit in terms of cold symptoms or getting colds."**  
PMID: 19216002



Journal of Epidemiology & Infection:  
**"There is little evidence to support the effectiveness of face masks to reduce the risk of infection."**  
PMID: 20092668

(BMJ) British Medical Journal:  
**"..laboratory-confirmed virus were significantly higher in the cloth masks group.. Penetration of cloth masks by particles was almost 97%.. This study is the first RCT of cloth masks, and the results caution against the use of cloth masks.. Moisture retention, reuse of cloth masks and poor filtration may result in increased risk of infection."**  
PMID: 25903751

Respiratory acidosis:  
**"Respiratory acidosis develops when air inhaled into and exhaled from the lungs does not get adequately exchanged between the carbon dioxide from the body and oxygen from the air."**  
<https://www.medicalnewstoday.com/articles/313110>

University of Edinburgh:  
**"Conversely, surgical and hand-made masks, and face shields, generate significant leakage jets that have the potential to disperse virus-laden fluid particles by several metres. The different nature of the masks and shields makes the direction of these jets difficult to be predicted, but the directionality of these jets should be a main design consideration for these covers. They all showed an intense backward jet for heavy breathing and coughing conditions. It is important to be aware of this jet, to avoid a false sense of security that may arise when standing to the side of, or behind, a person wearing a surgical, or handmade mask, or shield."**  
<https://arxiv.org/ftp/arxiv/papers/2005/2005.10720.pdf>

(JAMA) Journal of the American Medical Association:  
**"Face masks should not be worn by healthy individuals to protect themselves from acquiring respiratory infection because there is no evidence to suggest that face masks worn by healthy individuals are effective in preventing people from becoming ill."**  
<https://jamanetwork.com/journals/jama/fullarticle/2762694>

# Let's be consistent



**JAN D'AILLY**

**COMMENTS ON MANDATORY FACEMASKS  
WATERLOO REGIONAL COUNCIL MEETING  
MONDAY JULY 6<sup>TH</sup> 2020**



- Consistency between public health and by-laws
- Broadly applicable
- How will rules change to no requirement for facemasks?
- Leadership based on a total package



- **Consistency between public health and by-laws**
  - This by-law is a request from Council, not a recommendation from public health.
  - Outcomes to date have been pretty good.
  - Public health recommendations are for facemasks when physical distancing is not possible.
- **Broadly applicable**
- **How will rules change to no requirement for facemasks?**
- **Leadership based on a total package**



# Public Health Information.



- Ontario Ministry of Health and Public Health  
Ontario recommendations regarding the use of a face covering (non-medical mask) to reduce the risk of transmission of COVID-19 when physical distancing may be challenging or not possible.
- Same message from Canadian Federal Government and the CDC in the USA.



- **Consistency between public health and by-laws**
- **Broadly applicable**
  - Make sure it makes sense and can be applied everywhere
  - Exception for public transport is reasonable.
- **How will rules change to no requirement for facemasks?**
- **Leadership based on a total package**



- Consistency between public health and by-laws
- Broadly applicable
- How will rules change to no requirement for facemasks?
  - What are the science based guidelines for removal of the by-law
- Leadership based on a total package



- Consistency between public health and by-laws
- Broadly applicable
- How will rules change to no requirement for facemasks?
- Leadership based on a total package
  - Contact tracing
  - Tracking apps
  - Increased testing
  - Population sampling
  - Education

# Final comment



- **Let public health be the lead authority**
- **Re-inforce as needed, specific requirements**
- **Be bold in a comprehensive COVID-19 Strategy**

# One authority



- Limit the exceptions, like public transit
- Make sure rules can be broadly applied

# Face Mask By-law

Gary Tomic

# Overview

- Lay pastor at Apostolic Christian Church Nazarean in Kitchener
  - Approximately 300 attendees
- Perspective for house of worship included in proposed face mask by-law Appendix A of places included in mask by-law



# House of Worship context

- Taking the 30% capacity seriously along with physical distancing requirements
- House of worship is generally well regulated, seating arrangements that satisfy the physical distancing requirements
- Face masks information from the proposed by-law footnote from Public Health Ontario



06/17/2020

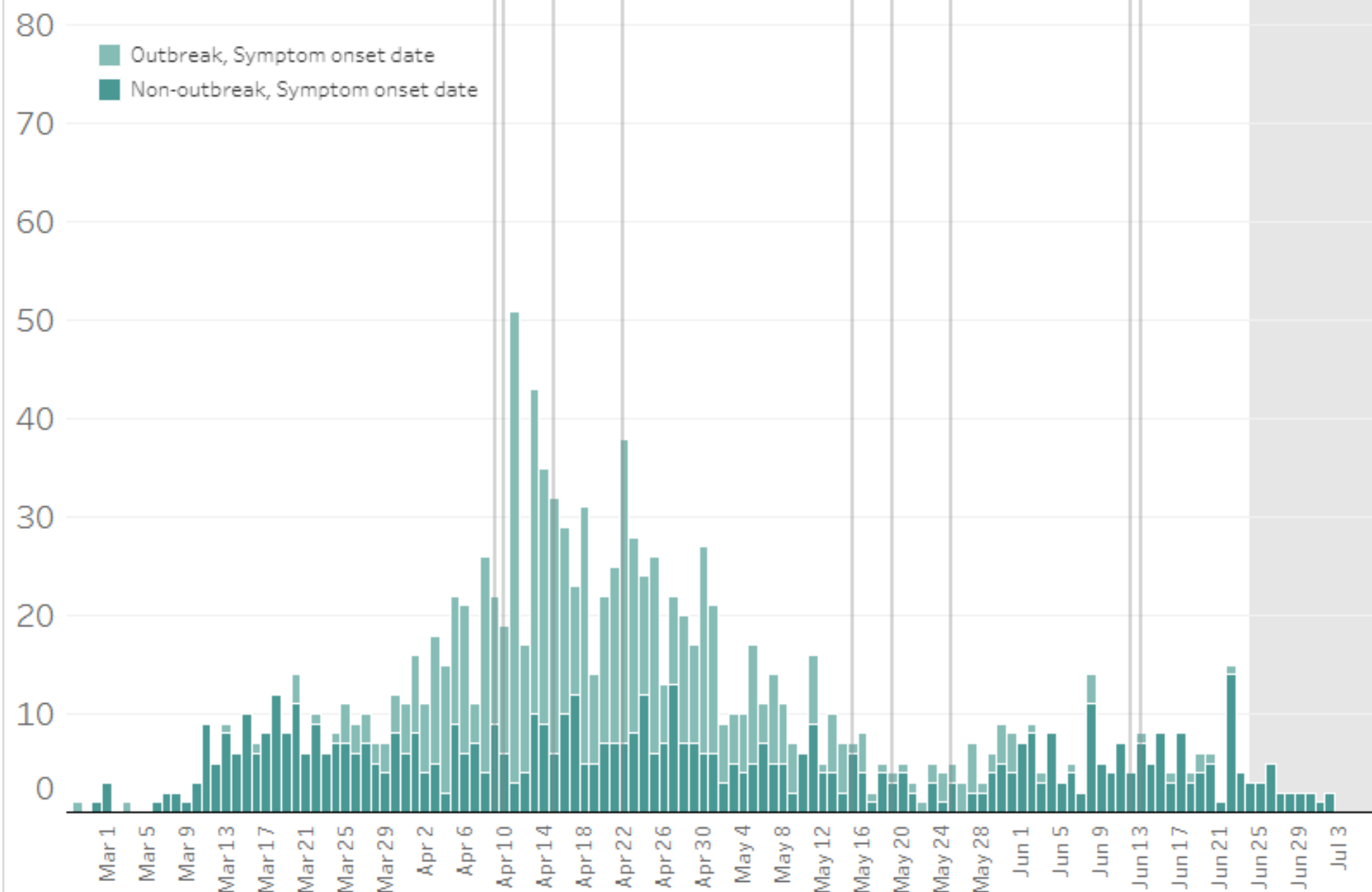
COVID-19 – What We Know So Far  
About...Wearing Masks in Public

# Key points from Public Health Ontario

- Public mask wearing is likely a beneficial source when worn by persons shedding covid-19 when physical distancing is not possible
- There are theoretical risks of harm from public mask use including self-contamination
- Importance of hand hygiene
- Page 14 – Randomized trials
  - No significant benefit from wearing masks was identified. Studies that demonstrated a benefit were associated with enhanced hand hygiene

## New cases by symptom onset date

Change date field: ☒

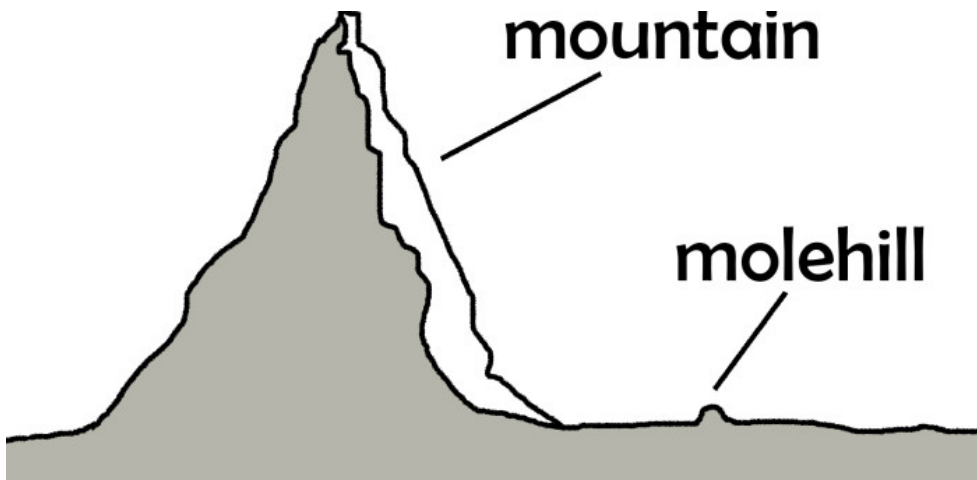


# Summary

- There are no documented randomized trials to prove that masks are effective for covid
- Conversation in today's meeting incorrectly compares
  - Medical grade masks, used by professional health care personnel, in sterile environments, used properly and used once
  - Non medical grade masks, used by non professionals in non sterile environments and used over and over again
- There are risks with mask wearing that may increase the risk due to improper use and frequent face touching to adjust
- Doctors and virologists on both sides of the debate for masks but not on hand hygiene
- House of worship in particular are impacted by masks
  - Most business do not require social interaction so anonymization by masking is OK
  - Hiding facial features and hindering conversation at safe physical distances negatively impacts the emotional and spiritual state of attendees

# Asks

- Start with known, high value mandatory requirements around hand hygiene
  - The majority of discussion is around face masks which is far less value than hand hygiene so **we should have a hand hygiene by-law** long before considering a face mask by-law
  - False sense of security with masks, and increased risks



# Asks

- If a mask by-law is passed
  - Please exempt places where physical distancing requirements can be reasonably met
  - Please follow Guelph's lead of exempting houses of worship